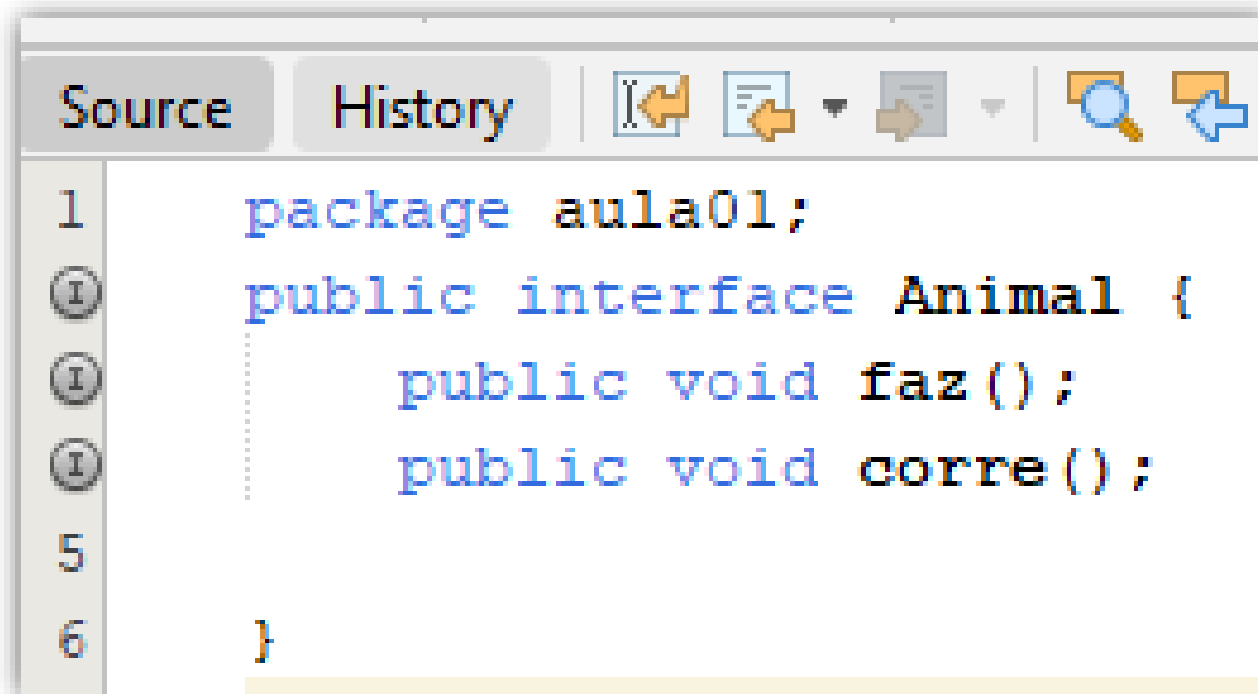


Algoritmos e Estruturas de Dados

Interface

Interface

- Interface são **classes abstratas** utilizadas para agrupar métodos relacionados.



The screenshot shows a code editor window with two tabs: 'Source' and 'History'. The 'Source' tab is active, displaying the following Java code:

```
1 package aula01;
2 public interface Animal {
3     public void faz();
4     public void corre();
5
6 }
```

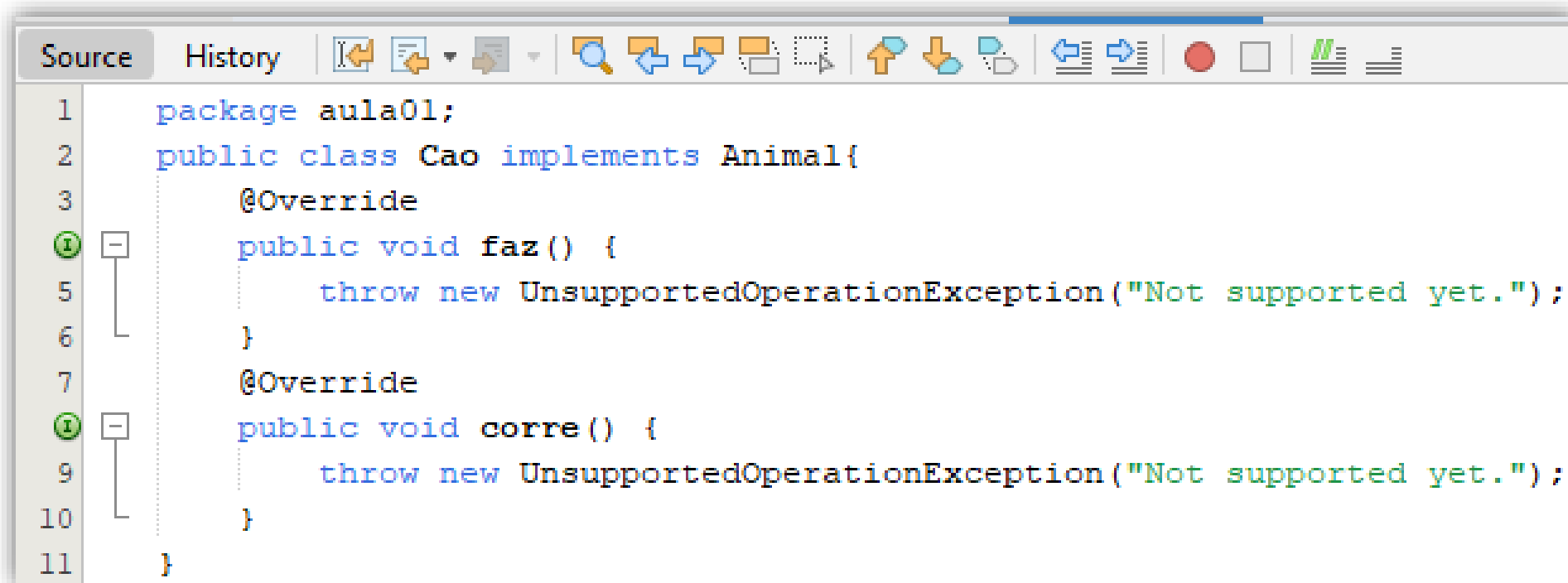
The code is color-coded: 'package' is blue, 'aula01' is orange, 'public' is blue, 'interface' is blue, 'Animal' is black, '{' is black, 'void' is blue, 'faz()' is black, 'corre()' is black, and '}' is black. The line numbers 1 through 6 are visible on the left side of the editor.

Interface

- Para aceder ao métodos da interface, a interface deve ser implementada por uma outra classe, usando a palavra-chave **implements** (em vez de **extends** que se usa na herança simples)

Interface

- Classe **Cao** implementa a interface **Animal**:



```
Source History | [Icons]
1 package aula01;
2 public class Cao implements Animal{
3     @Override
4     public void faz() {
5         throw new UnsupportedOperationException("Not supported yet.");
6     }
7     @Override
8     public void corre() {
9         throw new UnsupportedOperationException("Not supported yet.");
10    }
11 }
```

The screenshot shows an IDE window with a toolbar and two tabs: 'Source' and 'History'. The 'Source' tab is active, displaying Java code. The code defines a package 'aula01' and a class 'Cao' that implements the 'Animal' interface. The class contains two methods, 'faz()' and 'corre()', both annotated with '@Override'. Each method throws a 'UnsupportedOperationException' with the message 'Not supported yet.'. The code is formatted with syntax highlighting: keywords in blue, annotations in green, and strings in red. Line numbers 1 through 11 are visible on the left side of the editor.

Interface

- As interfaces não podem ser usadas para criar objetos
- Os métodos de uma interface não possuem “corpo”.
- Ao implementar uma interface, deve-se reescrever todos os seus métodos
- Interfaces não possuem construtor (visto que não são usados para criar objetos)

Interface Múltipla

```
package aula01;  
public interface Animal {  
    public void faz();  
    public void corre();  
}
```

```
package aula01;  
public interface Mamifero {  
    public void tem();  
}
```

```
package aula01;  
public class Gato implements Animal, Mamifero {  
    @Override  
    public void faz() {  
        throw new UnsupportedOperationException("Not supported yet.");  
    }  
    @Override  
    public void corre() {  
        throw new UnsupportedOperationException("Not supported yet.");  
    }  
    @Override  
    public void tem() {  
        throw new UnsupportedOperationException("Not supported yet.");  
    }  
}
```

AED - Interface

Questões?